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(Un)Happiness in Transition

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Abstract

Despite the strong growth performance in transition countries in the last decade, residents of transition countries report abnormally low levels of life satisfaction. Using data from multiple sources including a recent survey in 28 post-communist countries, we study various explanations of this phenomenon. We find that deterioration in public goods provision, an increase in macroeconomic volatility, and a mismatch of human capital explain a great deal of the difference in life satisfaction between transition countries and other countries with similar income. The rest of the gap is explained by the difference in the quality of the samples. As in other countries, life satisfaction in transition is strongly related to income; but due to a higher non-response of high-income individuals in transition countries, the effect of GDP growth on the increase in life satisfaction estimated using survey data is biased downwards. The evidence suggests that if the region keeps growing at current rates, the life satisfaction in transition countries will catch up with the "normal" level in the near future.

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1. Introduction

The transition from plan to market in post-communist countries is an economic transformation of unprecedented scale. Within 15 years, countries have removed central planning, liberalized prices and foreign trade, introduced modern institutions of taxation, banking, customs, independent central banking. A typical transition country in Central or Eastern Europe and former Soviet Union has privatized majority of its industrial enterprises, overcame the initial output fall and embarked on a path of strong and sustained growth. In the hindsight, the initial expectations of fast and easy transition do seem naïve. Yet, considering the challenge of the large-scale institutional transformation, the recent nine years of economic growth suggest that economic transition has largely been a success (Figure 1 presents the dynamics of real GDP per capita for transition countries).

[Figure 1 here]

Uniformly across the Central and Eastern Europe and Central Asia (as well as in China and Vietnam) the growth stems from private enterprises and integration into the global economy. It is, therefore, hard to refute a conclusion that transition has eventually brought economic fruit despite being slower and more painful than expected.

This view, however, is not shared by the residents of transition countries. In the recent large-scale survey of 28,000 individuals in 28 transition countries carried out by the World Bank and the European Bank for Restructuring and Development (EBRD, 2007), 49 percent of respondents disagreed (and only 35% agreed) with the statement that the economic situation in their country today is better than around 1989; and 44 percent disagreed with the statement that political situation in their country is better now than before transition had started (compared to 35 percent who agreed with this statement). These percentages vary across countries, but in a rather large number of countries the vast majority of respondents expressed strong dissatisfaction with transition. For example, shocking 75 percent of Hungarians, 70 percent of Ukrainians, 70 percent of Kyrgyz, 63 percent of Bulgarians, and 61 percent of Moldovans disagree that the economic situation in their country today is better than around 1989.[1] The expressed lack of

[1] Incidentally, in the two countries which are among the least reformed in Europe – Belarus and Albania – the population is very positive about the recent history: 70% of Albanians and 68% of Belorussians agree that their

support for transition is not driven by abstract ideological considerations about preferences over economic systems unrelated to day-to-day lives. On the contrary, it is vividly reflected in the ultimate measure of utility – self-reported life satisfaction.

In this paper, we survey the available evidence and analyze new data sources to address the following two questions: Are the residents of transition countries particularly unhappy? And, if yes, what can explain this phenomenon?

2. Are people in transition unhappy?

> *"Now I can earn money and there are many ways of doing so... My parents didn't have these opportunities… People who had the time and energy and wanted to provide more for their families could not do it."*[2]

The most comprehensive source of data on the life satisfaction around the world is World Values Survey (WVS) which asks representative samples of individuals in up to 84 countries various questions about their attitudes and values. The results of the WVS show that the self-reported life satisfaction has fallen during transition and is below the levels of life satisfaction in other countries with similar per capita income.

[Figure 2 here]

Figure 2 illustrates that transition countries lie significantly below the regression line in regressions that explain life satisfaction with per capita GDP. The two scatter plots in the figure present the bivariate relationship between life satisfaction and per capita GDP in the two most recent WVS surveys available, i.e., wave 3 (1994-1999) and 4 (1999-2003). Once we control for country variation in income, inflation, inequality, and unemployment—the usual determinates of variation in the country-level measures of life satisfaction—life satisfaction in transition

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respective countries are better off today than in 1989 compared to 17% of Albanians and 13.5% of Belorussians who disagree with this statement.

[2] Henceforth, as epigraphs to various sections of the paper, we use the direct quotes from interviews of Russian people made in a sociological study "Russian attitudes and aspirations: The results of focus groups in nine Russian cities" conducted by the Institute for Comparative Social Research in Moscow (CESSI) and EBRD in the spring of 2007. The report is available at http://www.ebrd.com/pubs/econo/asp.pdf.

countries remains significantly lower than predicted by the levels of these variables. The magnitude of the difference (controlling only for country-level factors) is large: life satisfaction in transition countries is 1.48 points below the predicted level in the wave 3 of WVS and 0.7 points below – in the wave 4 of the survey. Here life satisfaction is measured on the scale from 1 to 10 with standard deviation of 2.46. Deaton (2007) reports similar finding using the World Gallup Poll data for 2006.

Literature points to a long list of individual-level determinants of life satisfaction such as age, gender, marital and employment status, and education (see, for instance, Frey and Stutzer, 2002, Blanchflower and Oswald, 2004, Layard, 2005). These characteristics of individuals systematically vary across countries, and therefore, it is important to account for variation in these factors as well. Following the literature, we run individual-level regressions in which we control for such individual characteristics as age (both linear and quadratic terms), gender, employment and marital status, and education level, and such country-level characteristics as log GDP per capita, unemployment rate, Gini index, the level of democracy and media freedom.[3] Transition countries' residents remain significantly less happy than the residents of other countries in the individual-level regressions. Table 1 presents the regression results. Columns 1 and 2 of the Table 1 present results for the waves 4 and 3 of the WVS, respectively. In Columns 3 and 4, we report results for regressions on the sample of all the waves pooled together. The estimated size of the difference in life satisfaction between transition and non-transition countries (controlling both for country-level and individual-level determinants of life satisfaction) is between 0.9 and 1.12 points for wave 4 and between 1.40 and 1.57 for wave 3 of WVS depending on specification (i.e., whether we allow the effects of individual and country-level controls to vary across survey waves). Overall, the coefficient on transition dummy is robustly negative and significant in individual-level and country-level regressions of life satisfaction and the difference between life satisfaction of residents in transition and non-transition countries is large: it equals to about one half of standard deviation in life satisfaction.

[Table 1 here]

[3] The detailed description of all variables, their sources, and specifications mentioned in this paper are available in the technical (not-for-publication) appendix, available at the following URL: www.cefir.ru/ezhuravskaya/research/Appendix_happiness.pdf.

Household income and country's wealth is known to be robustly associated with life satisfaction (see Frey and Stutzer 2002, for a survey, and Deaton 2007, for most recent evidence). Columns 3–7 of Table 1 replicate these results. Country's GDP per capita, household's relative and absolute income significantly increase life satisfaction both in transition and non-transition countries. Moreover, the sensitivity of life satisfaction to country's wealth and household's relative and absolute income is significantly larger in transition countries than in non-transition countries. On average, a move up by one step on a ten-step relative income ladder in non-transition countries increases life satisfaction by 0.12 points and in transition countries by 0.19 points (see Columns 4 and 5 of Table 1). The interaction term of income and transition country dummy estimates the difference between transition and non-transition countries and is equal to 0.07 points; this difference is statistically significant.[4] This effect is the same irrespective of whether we control for above-mentioned country-level characteristics (Column 4) or for all cross-country variation with country fixed effects (Column 5). As far as the effect of the *absolute* level of income on life satisfaction is concerned, a 10 percent increase in the household income and household *per capita* income increase life satisfaction in transition countries by 0.06 and 0.04 points, respectively, and in non-transition countries by 0.04 and 0.02 points, respectively (see Columns 6 and 7 of Table 1).[5] Further, a 60 percent increase in a transition country's real GDP per capita (roughly equivalent to 7% growth rate sustained over 7 years in a row, i.e., Russia's performance since resuming economic growth) leads to an increase in life satisfaction by 0.36 points (see Column 5).

The fact that in transition life satisfaction is even more sensitive to changes in income than in other countries implies that, once the growth restarts, people in transition should start to feel better about their lives. (Albeit this argument can be made in application to transition countries, it may not have universal applicability. Frey and Stutzer 2002 use WVS data to show that at high levels of per capita income, i.e., starting at about $10 000 per capita, marginal utility of income diminishes. Deaton 2007, however, shows a universal positive effect of income on life

[4] Note that whenever we include an interaction term between transition country dummy and another variable, before calculating the interaction, we subtract sample mean from the variable in order to have the coefficient on the transition country dummy to estimate the full difference in the life satisfaction between transition and non-transition countries evaluated at the mean of this variable.

[5] The decrease in the number of observations in the Column (7) of Table 1 is due to the fact that data on the number of household members are missing for a large number of countries in the WVS.

satisfaction in the World Gallup Poll data.) Do we see in the data an increase of life satisfaction in transition countries following growth? We do – once we look carefully. The changes in life satisfaction from one wave of WVS to another help to understand what happened. Figure 3 presents the scatter plots of the changes in the average country-level life satisfaction and average growth of per capita GDP between waves 2 and 3 (upper panel) and waves 3 and 4 (lower panel) of WVS.

[Figure 3 here]

First, it is evident that life satisfaction is substantially more volatile in transition countries than in non-transition countries (transition countries are further away from the horizontal line representing no change in life satisfaction in both waves). Second, while between the second and the third wave of WVS satisfaction fell in all transition countries with the exception of Slovenia, it swung back in the majority of transition countries between the third and the fourth wave. The change between the second and the third wave of WVS depicts the situation in the midst of the initial output decline (1994-1999). The wave 4 of WVS took place during the recovery and growth – between 1999 and 2003, albeit mostly in the early years of this period. 13 out of 20 transition countries included in wave 4 were surveyed in 1999. This was when many transition countries just started their recovery (see Figure 1), yet this initial increase in income was enough to boost life satisfaction. Therefore, one could conjecture that happiness in transition countries has been improving ever since the fourth wave of WVS as countries found themselves on a growth path for a substantial period of time. As the newer wave of WVS is still to come, we need to draw on other data sources to find out what has been happening.

In 2006, EBRD and the World Bank (WB) conducted a survey of representative samples of individuals in 28 post-communist countries entitled "The Life in Transition Survey" (LITS). Among many attitudinal questions, LITS included a question about life satisfaction. Unfortunately, the questions about life satisfaction in WVS and LITS are not the same; both the scale and the wording of the questions differ.[6] Since framing affects people's responses to essentially the same questions (see surveys in Bertrand and Mullainathan 2001, Kahneman and

[6] WVS questionnaire asks: "All things considered, how satisfied are you with your life as a whole these days?" Respondents can choose the answer from the scale from 1 ("Dissatisfied") to 10 ("Satisfied"). LITS questionnaire asks a different question: "Do you agree with the following statement: All things considered, I am satisfied with my life as a whole now." Respondents can choose their answer from the scale from 1 ("Strongly disagree") to 5 ("Strongly agree").

Krueger 2006, Gilbert 2006), one should be extremely cautious about comparing answers to questions that are differently framed. Yet, since there are no better data at hand for a number of transition countries, we compare WVS and LITS. In order to do that we transform the scale of LITS question into 1 to 10 (as in WVS) and treat the answers as if they were to the same question.

If we take the comparison of WVS and LITS at face value, it turns out that individual country experiences vary greatly. Figure 4 presents dynamics of the life satisfaction measure and of per capita GDP for individual countries included in the two surveys. In 11 out of 23 countries (i.e., Albania, Armenia, Belarus, Estonia, Latvia, Lithuania, Moldova, Russia, Slovakia, Slovenia, and Ukraine), life satisfaction continues to grow after the fourth wave of WVS. In these countries, life satisfaction follows the U-shaped pattern of the per capita GDP over time: decline in the early 1990s and growth starting in the late 1990s (see Panel a of Figure 4). Six countries (i.e., Bulgaria, Croatia, Czech republics, Kyrgyzstan, Poland and Romania) had no significant change in life satisfaction despite the recent growth (see Panel b of Figure 4).[7] Six countries (in particular, Azerbaijan, Bosnia and Herzegovina, Georgia, Hungary, Macedonia, and Serbia and Montenegro) actually experienced a fall in life satisfaction during the whole observation period – which is different for different countries – despite the growth of per capita GDP (see Panel c of Figure 4). Five of these six, however, were involved in major civil conflicts. Only Hungary experienced a large and continuous fall in satisfaction with life despite a successful transition and peace. The sharp increase of dissatisfaction in Hungary between the last wave WVS and LITS is not too surprising. The LITS survey in Hungary took place during the street riots following the announcement of the so-called "fiscal consolidation package" – a policy aimed at combating fiscal deficit which involved a significant cut in real wages for the public-sector employees and which resulted in the actual decline in the average real wage.[8] To sum up, the comparison of WVS and LITS yields mixed results, but in a majority of countries, we find growth in life satisfaction since the end of the 1990s exactly as one would expect.[9]

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[7] Note that Kyrgyzstan's life satisfaction was abnormally high in the 4th wave of WVS compared to its per capita income, so one should expect the correction towards lower satisfaction. The change in life satisfaction between 2003 (the year of the last WVS) and 2006 (the year of the LITS) for Kyrgyzstan is insignificant.

[8] See, for instance, IMF's country report available at http://www.imf.org/external/pubs/ft/scr/2007/cr07250.pdf.

[9] Deaton (2007) compares the results of the World Gallup Poll conducted in 2006 with the results of the last wave of the WVS and also finds that in 2006 transition countries are less unhappy than in the earlier surveys.

[Figure 4 here]

This evidence is at best suggestive. First, as we already discussed, questions in WVS and LITS are not the same, which may be responsible for the difference between the survey results. Second, as Deaton (2005) points out, non-response rate in household and individual surveys depends on income and this can severely undermine representativeness of the samples. The non-response rate could be different in different surveys and also vary within one survey across countries. As the next step, we examine whether the presented results may be driven by the variation in non-response rate.

First, we calculate the average difference between per capita income from the WVS and GNI per capita for transition and non-transition countries. It turns out that the samples in the transition countries are substantially more biased in favor of the poor compared to samples in the non-transition countries. The ratio of the average per capita income from the WVS to country's per capita Gross National Income (GNI from the World Development Indicators) is about 0.85 in non-transition countries and only about 0.40 in transition countries.[10] Based on the estimates of elasticity of life satisfaction with respect to per capita household income in transition countries, we compute the size of the gap between happiness in transition and non-transition countries generated purely by difference in the quality of the samples. If the sample quality in transition countries would improve to the average level for non-transition countries, life satisfaction would increase by *0.33 points*. Therefore, even though the gap between transition and non-transition countries decreases once we take into account the quality of the sample, it remains rather large (i.e., between 0.55 and 0.79, depending on specification).

Second, we examine the quality of the LITS samples to get a sense of comparability between LITS and WVS. The average share of national accounts to LITS estimates of per capita consumption is 0.7, which suggests that the samples in LITS countries are less biased towards the poor compared to WVS. This implies that the estimate of the growth of life satisfaction between 2006 (from LITS survey) and 1999-2003 (from WVS) may actually be overstated by

[10] One should keep in mind, however, that it would be naïve to take national accounts data for granted as well. Deaton (2005) suggests that the truth lies somewhere in between the survey estimates and national accounts estimates of income and consumption. Note that the magnitude of the difference between the quality of the samples in transition and non-transition countries is similar when the base for comparisons is Penn World Tables rather than WDI data.

0.24 points. Yet, the estimated increase in the life satisfaction is much larger for most countries (see Panel a of Figure 4.)

WVS and LITS exhaust the list of comparable datasets across countries; yet, longitudinal data sets exist for a limited number of transition countries. For example, Russian Longitudinal Monitoring Survey (RLMS) provides comparable data both for a repeated cross-section and for a panel of individuals for 11 rounds (waves) between 1994 and 2006. These data allow us to check the validity of the results of comparisons of WVS and LITS for the case of Russia. Figure 5 presents the pattern of life satisfaction for an average Russian individual unexplained by his or her socio-demographic and economic characteristics (these are the estimates of time dummies from panel regressions with individual fixed effects and all the usual individual determinants of life satisfaction.) It is evident that life satisfaction roughly follows the pattern of Russia's GDP per capita, even though we control for household income.

[Figure 5 here]

The same pattern emerges when we look at the repeated cross sections of representative samples of Russian individuals. These findings are consistent with our results from the comparison of WVS and LITS. The effects of individual characteristics on life satisfaction are also consistent across surveys.

RLMS samples are also biased towards the poor although much less than LITS or WVS (the ratio of household consumption in RLMS sample to the analogous indicator from the national accounts is 0.85) and–which is more important for regression results with individual fixed effects–towards people whose incomes grow slower compared to the national average from national accounts as illustrated in Figure 6. Thus, growth in life satisfaction in Russia in the last few years must have been even faster than estimated with RLMS data.

[Figure 6 here]

To sum up, based on available data sources, people in transition countries appear to have significantly lower life satisfaction compared to their counterparts in other countries with similar per capita incomes, unemployment, inequality, and inflation. This difference was particularly large in the middle of the 1990s and, most probably, has been closing since then. A part of this difference (about 0.33 points) can be explained purely by the differential quality of the survey samples in transition and non-transition countries. The remaining gap, however, is

rather large. In the remainder of this paper, we examine various theories which can potentially explain this gap.

3. Why are people in transition countries so unhappy?

One can come up with several not mutually exclusive explanations for why people in transition countries are less satisfied with their lives compared to people with similar individual characteristics living in countries with the same level of income (and other country characteristics). Below we consider four theories which may explain how transition can undermine life satisfaction. The theories are related to (i) an unforeseen depreciation of human capital accumulated before transition as different skills are relevant in command and market systems; (ii) a decrease in quality and quantity of public goods provision; (iii) a sharp increase of volatility and uncertainty of earnings and (iv) a substantial increase in inequality and perceived unfairness of the new socio-economic order.

3.1. Human capital depreciation

> *"People who found a good place for themselves in life are very satisfied. But we are not. Just because we missed the last train."*

The massive structural change that took place during transition may have affected not only the level of current income (which we control for when we compare life satisfaction in transition and other countries), but also the expected lifetime earnings. The value of the stock of human capital accumulated during the command economy could have been wiped out because it was comprised of the skills specific to the command system and irrelevant for the market economy. When the market reform started, skilled workers suddenly found themselves in need of retraining to jumpstart their careers. This negative shock to the NPV of lifetime earnings should have negatively affected their life satisfaction. We cannot test for this theory directly because specific skills are unobserved; neither the level of education nor occupation capture the skills necessary for success in new market economy. Yet, this theory generates two indirect, but testable predictions, which we address in turn to see whether the theory has empirical relevance.

First, the effect of deterioration of human capital should be reflected in the relationship between happiness and age. The transition shock should be more painful for older than for younger workers. Since the future earnings and, thus, the returns to investment in the new human capital are proportional to the remaining time within working age, older people have lower incentive to invest in retraining and should be less happy. Therefore, the difference between happiness in transition and non-transition countries should increase with age. Indeed, this is what we find. A simple unconditional bivariate relationship between age and life satisfaction is strikingly different for transition and non-transition countries. In transition countries happiness decreases monotonically with age, whereas in other countries it is U-shaped. Figure 7 shows the non-parametric relationships between life satisfaction and age for transition countries and for non-transition countries which have comparable level of per capita GDP to transition countries. (See also Deaton 2007 for similar graphs for individual countries based on World Gallup Data 2006).

[Figure 7 here]

Once we control for such individual characteristics as employment status and education, life satisfaction in transition also becomes U-shaped, but the minimum point of happiness is achieved in transition countries on average at a substantially older age than in non-transition countries: 60 vs. 40 years old (see Frey and Stutzer 2002, Blanchflower and Oswald 2004, on relationship of happiness and age and Graham et al. 2004, Sanfey and Teksoz 2007, on application to transition countries). But the basic fact that the difference between happiness in transition and non-transition countries increases with age remains true. This is illustrated in regression presented in Column 1 of Table 2: the coefficient on the interaction of transition country dummy with (linear) age term is large, negative and significant.

Second, if the theory of depreciation of pre-transition human capital is true, one should observe a discontinuous jump in the relationship between happiness and the year when education was completed. Those educated under the last years of the old regime should feel substantially less happy than those who were educated just after the start of the new regime. This would be true under a very strong assumption that people managed to momentarily adjust their expectations about the skills demanded by the new economy. Even though, it is clear that the supply side, i.e., education systems, could not and did not adjust immediately to the demands of the new system, the students would still make adjustments within the existing system. For

example, the students of the history of the communist party should have switched to studying foreign languages or computer science.

We find strong support for this prediction as well. In the sample of individuals from transition countries, controlling for the effect of age and age-squared, the year of completing education and the current level of reform (as well as all other usual determinants of life satisfaction), the life satisfaction discontinuously jumps up when the year of completing education is after the start of market reform compared to when it is before the start of market reform. In particular, the coefficient on the EBRD Reform Index for the countries in the year when the respondent completed his (or her) education is positive and significant (see Column 2 of Table 2). The EBRD Reform Index measures the extent of market reforms in each transition country at each point in time during transition. The discontinuity is present irrespective of which data set we use to estimate it (WVS or LITS) and irrespective of whether we use continuous measure of reform progress or a dichotomous indicator of whether reforms have started in the country. To sum up, we find that people who finished their education just before transition are significantly less satisfied (by 0.21 points) than those who were educated just after the reform started. Overall, data provide solid support to the human capital depreciation theory. But it helps to explain only a part of the difference between transition and non-transition countries (i.e., 0.21 points only for those individuals who were educated before transition).

3.2. Deterioration of public goods

> *"…If I plan to have a child then I will need to send him or her to kindergarten, but they are all so expensive now. Kindergartens used to be free but now almost none of them are..."*

The second explanation is related to the deterioration of public goods. It is possible that in some transition countries, severe weakening of the state resulted in a decline in public goods provision to the level below the one in other countries with comparable GDP per capita. It could also be the case that the level of public goods provision in transition countries remained higher than in other countries with comparable GDP per capita, but unlike other countries, the transition countries experienced a sharp decline in the quantity or quality of public good provision. In the command economy most public goods were provided free of charge. Since transition has reduced the amount of resources in the hands of the governments, public goods either deteriorated, or

became more expensive, or both. To see whether public goods explain the difference between happiness in transition and non-transition countries, one has to account for the level and quality of public goods.

To proxy for the quality of public goods provision, we use the following WVS question on the confidence in public goods: "I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it (1) a great deal of confidence, (2) quite a (3) lot of confidence, (4) not very much confidence or none at all?" This question was asked in the WVS for the main public goods including education system, police, social security system, health care system, justice system. Reverse causality arises if one links peoples' happiness to their own answers because how people feel about their life in general may have an influence on their perceptions of public goods. To avoid the reverse causality, we construct country averages of the answers to this question (for each wave in which they were asked) and for each individual observation exclude this individual's own opinion from the calculation of the average.[11] In addition, we use country-level indicators of outcomes of public goods from the World Development Indicators. We focus on the variables that reflect the *outcomes* of public goods such as infant mortality, the share of kids immunized against DPT, and the CO2 emissions per capita (controlling for GDP per capita).[12] The results are reported in the Column 3 of Table 2. The confidence in education has a positive significant effect and infant mortality a negative significant effect on life satisfaction; other proxies for the quality and outcomes of public goods provision are insignificant. Our main interest, however, is in the size and significance of transition country dummies. The inclusion of these controls for public goods provision decreases the magnitude of the difference in life satisfaction between transition and non-transition countries, but does not eliminate it. In the wave 4, the difference is reduced to -0.73 points

[11] Note that wave 3 did not have the question on confidence in public goods. The measures of healthcare and social security quality have fewer observations. (The question on healthcare was asked only in one wave and on social security – in two waves.) In addition, our measures of confidence in healthcare and in social security are highly correlated with confidence in education; they have no additional explanatory power once confidence in education is included in the regression. For these reasons, we do not use them as covariates in the reported specification.

[12] We do not include in the regression, the indicators that measure the quantity of public goods provided such as the number of hospital beds and physicians per 1000 people as those do not capture the change in the quality of public goods and transition countries tend to have significantly higher values of these variables as a legacy from the communist times. Moreover, it is the quality rather than quantity of education and healthcare, as well as the lack of access to those, that the residents of transition countries usually complain about (see EBRD 2007 and the abovementioned study "Russian attitudes and aspirations: The results of focus groups in nine Russian cities" at http://www.ebrd.com/pubs/econo/asp.pdf).

(significant at 1% level). Overall, the theory of deterioration of public goods does find support in the data. Public goods also can explain a part of the difference between transition and non-transition countries.

3.3. Income volatility and increased uncertainly

> *"Instability in our life. It seems that everything is developing rather quickly now – if you want to find a job, you will find it, it is not a huge problem here. But even if you have a job, you don't feel secure or confident about the future. Even though business is developing very fast, it could come to an end very quickly. Regardless of how good a job you have and how good things are for you now, there is a feeling that anything could happen at any time. You cannot be confident that things will be good forever."*

One could also imagine that people in transition have become unhappy because of an increase in uncertainly. To understand the effect of uncertainty, we first use the question from WVS on whether people agree with the statement: "The future is so uncertain that it is best to live from day to day." This question was only asked in 17 countries (including four transition countries: Estonia, Lithuania, Russia, Ukraine). As with confidence in public goods provision, we aggregate responses to this question in order to avoid reverse causality. Uncertain future does make people unhappy, but adding this variable does not affect the negative significant effect of the transition dummy (Column 5 in Table 2). These results, however, should not be treated as conclusive because of severe data limitations.

Second, we add a country-level measure of income volatility: standard deviation of the logarithm of real per capita GDP growth after 1988 to find out if it can explain the difference between life satisfaction in transition and non-transition countries. Income volatility has a large negative effect on life satisfaction (albeit not always statistically significant); once we add this variable as a covariate to the regression, the gap in life satisfaction between transition and non-transition countries falls substantially. On average, in the whole sample, transition country dummy for wave 4 becomes statistically insignificant and equal to -0.67 (Column 4 in Table 2). After we include in the regression a measure of unfairness of the society (which we discuss in the next section) in addition to the income volatility measure, the magnitude of the effect of

transition country dummy (in the wave 4) is further reduced to -0.49, but becomes statistically significant at 10% level (Column 7).

3.4. Unfairness and inequality

> *"In this country, we don't have the situation where everybody can have what they need. One person lives in luxury and another has to save a long, long time just for one apartment… Not even an apartment. Some people do not have anything to eat."*

On the one hand, people may feel dissatisfied with their lives because of the sharp increase in inequality during transition (Milanovic 1998). On the other hand, given the level of uncertainty in transition, the information value of inequality may be important. Indeed, Senik (2004) uses panel data on Russia to confirm the validity of the "tunnel effect" introduced in Hirschman and Rotchild (1973): high earnings of others may provide information on opportunities and therefore increase happiness. Benabou and Tirole (2006) build a model with multiple equilibria where the effect of inequality may be different in different equilibria; their theory is consistent with the evidence in Alesina et al. (2004) that there is a large negative and statistically significant effect from inequality on happiness in Europe, but not in the United States.

Unfortunately, there are no good data on changes in Gini over time (Barro, 2000). In cross-section, on average, for all countries, Gini has a positive (albeit not always significant) effect on life satisfaction (Columns 1, 3-10 in Table 2). In transition countries, however, Gini has a significant negative effect on life satisfaction (see Columns 2 and 8 of Table 2). Yet, the inclusion or exclusion of Gini from the list of regressors does not have an effect on the coefficient on the transition dummy.

The sense of unfairness of transition may also shape people's attitudes. Fehr and Schmidt (2002) provide extensive evidence that most individuals (including those in transition countries) attach a non-trivial value to fairness. Using the LITS data, Denisova et al. (2007) show that in many transition countries the public is in favor of revision of privatization results, and that these sentiments are driven by the sense of unfairness of privatization outcomes rather than the belief in superiority of public ownership. To test whether the sense of unfairness of transition

process and outcomes can explain the difference between transition and non-transition countries' life satisfaction, we use the share of respondents in the country who answered "injustice" to the question "Why are there people in this country who live in need?" The inclusion of this variable into the list of covariates has little effect on the coefficient on transition country dummy (see column 6 in Table 2). To sum up, we do not find support to the theory that low life satisfaction in transition is driven is by inequality or unfairness.

3.5. Robustness checks

The analysis above is based on the answers to the "life satisfaction" question. We have also repeated the whole exercise for WVS "happiness" question as well ("*Taking all things together, would you say you are: Very happy, Quite happy, Not very happy, Not at all happy?*"). The happiness and life satisfaction variables are highly correlated. The results for happiness are similar to those for life satisfaction (except for most public goods indices and the income volatility being not significant). The initial difference between transition and non-transition countries is -1.23 points in comparable scale. Once we control for public goods, age, income volatility, the gap in happiness, it is reduced in absolute value to -0.58 (statistically significant at 5% level, with standard error 0.28). Yet, the estimate of the difference in selection bias between transition and non-transition countries accounts for 0.35 points of the gap in happiness; hence the unexplained difference in happiness between transition and non-transition countries is only about -0.23, i.e. virtually trivial.

In order to make sure that our results are not driven by the particularly large measurement error of PPP estimates of GDP in transition countries or by the unmeasured changes in the unofficial economy in transition countries, we verified that the results are also robust to using various alternative measures of economic well-being such as per capita GDP from the Penn World Tables; per capita GDP and consumption in constant US dollars (without PPP adjustment), energy use, and automobiles per capita.[13]

[13] These results are presented in the technical (not-for-publication) appendix, available at the following URL: www.cefir.ru/ezhuravskaya/research/Appendix_happiness.pdf.

3.6. What explains the unhappiness in transition

> *"My parents got their apartment from the state. They had a guaranteed salary that was in line with prices in the shops. They had a guaranteed pension. They knew they would get free medical care, they studied for free and their jobs were guaranteed. So they had no need to worry about anything… I do not have any of these hopes."*

The data are consistent with the hypotheses that depreciation of human capital, deterioration of public goods, and income volatility play a role in explaining lower life satisfaction in transition. Once we control for age, public goods, and income volatility at the same time (Column 9 in Table 2), the absolute value of the coefficient on transition country dummy goes down to 0.43. And when, in addition, we control for the social injustice measure, the coefficient falls in absolute value further to -0.19 (it is important to note that the effect of the unfairness is not significant, and the change in the magnitude of the coefficient on the transition dummy between columns 9 and 10 is exclusively due to the change in the sample.) In both of these regressions, the coefficient on transition country dummy is not statistically significant. Moreover, our analysis of the sample selection effect (see Section 2 above) implies that this coefficient is biased upward by about 0.33. Thus, our estimates of -0.19 to -0.43 imply that the effect is virtually trivial (±0.1 with a standard error of 0.25).

To sum up, the puzzle of abnormally low life satisfaction in transition countries disappears once we control for income, age, public goods, and volatility and account for the sample bias effect.

4. Conclusions

The conjecture that transition does make people unhappy is correct. But once we take a closer look there is virtually nothing unique about transition countries. Their residents' life satisfaction is positively associated with income and public good provision, very much like in other countries. The two effects specific to transition – depreciation of human capital stock accumulated under central planning and the negative effect of macroeconomic volatility – are present but are, by definition, temporary. Once we control for all these effects and account for

differences in data quality, the difference between transition and non-transition countries disappears.

Our results also imply that the ongoing growth in these countries will eventually increase life satisfaction. The most recent rounds of the World Values Survey were conducted either before or shortly after the resumption of growth in most transition countries. In the more recent data – such as Life in Transition Survey or Russian Longitudinal Monitoring Survey – we already see higher levels of happiness following the growth in per capita GDP. As both the income levels and income growth rates of survey respondents are lagging behind the GDP growth in these countries, the improvement of the survey-based estimates of life satisfaction takes longer than economic recovery.

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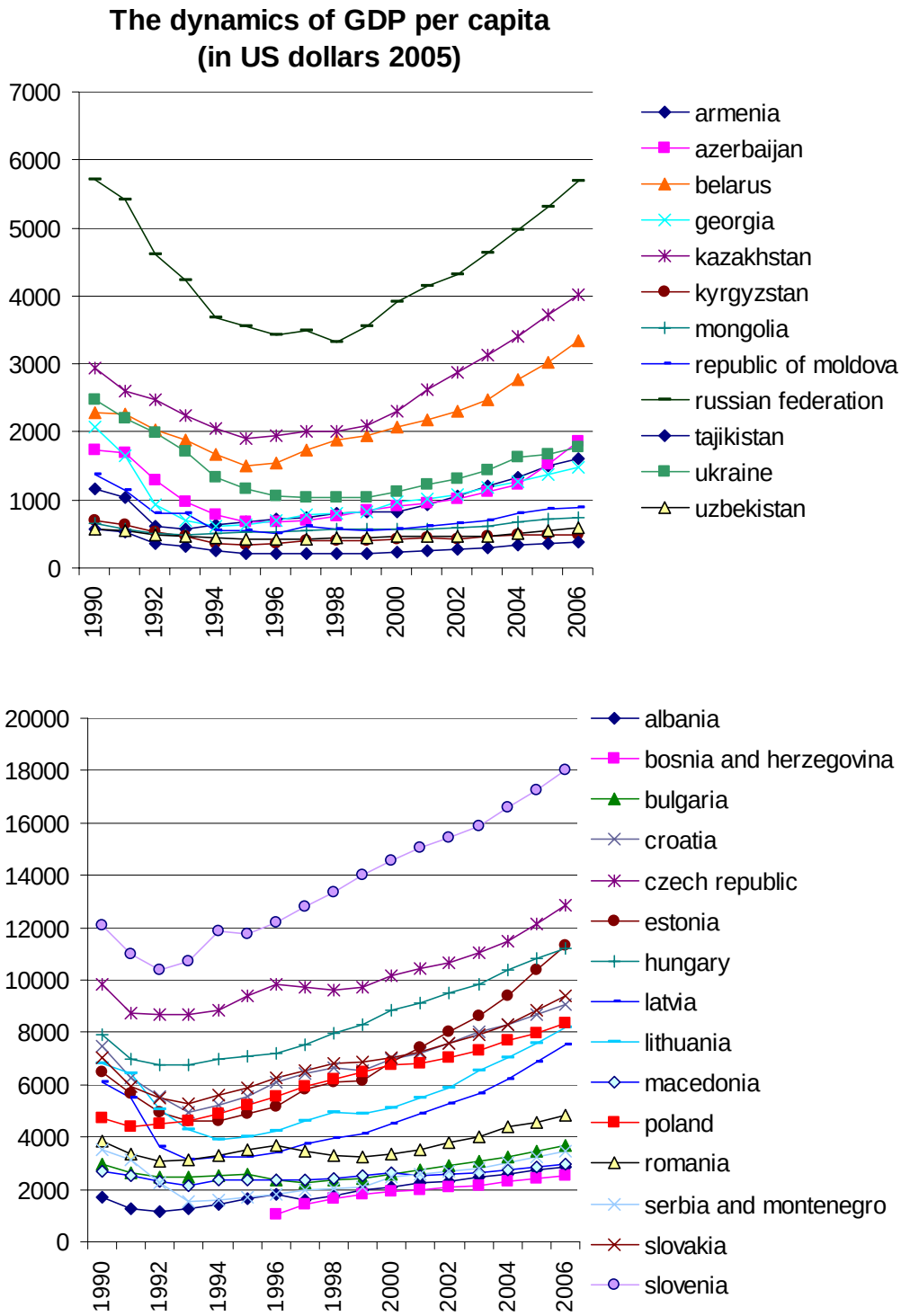


Figure 1. The Dynamics of Real GDP per Capita in the Transition Countries (in Constant 2005 US Dollars, not adjusted for PPP). Source: EBRD data. The corresponding series in PPP terms have similar shape, albeit different values. We report the non-adjusted to PPP numbers because the PPP-adjusted numbers are available only until 2004.

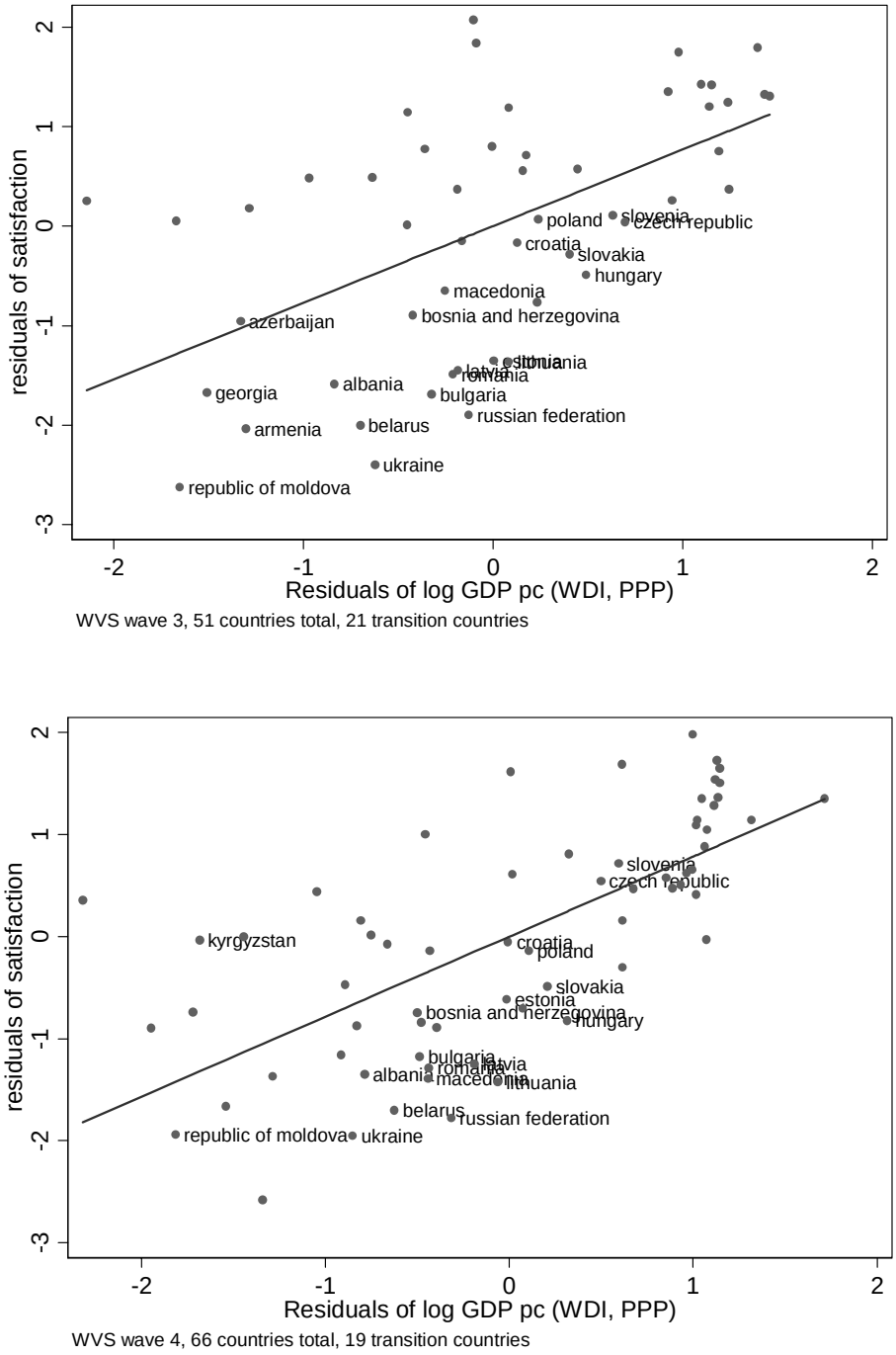


Figure 2. Life satisfaction and per capita GDP (World Development Indicators, PPP-adjusted $). Source: WVS. All countries included in the surveys; only transition countries marked with names.

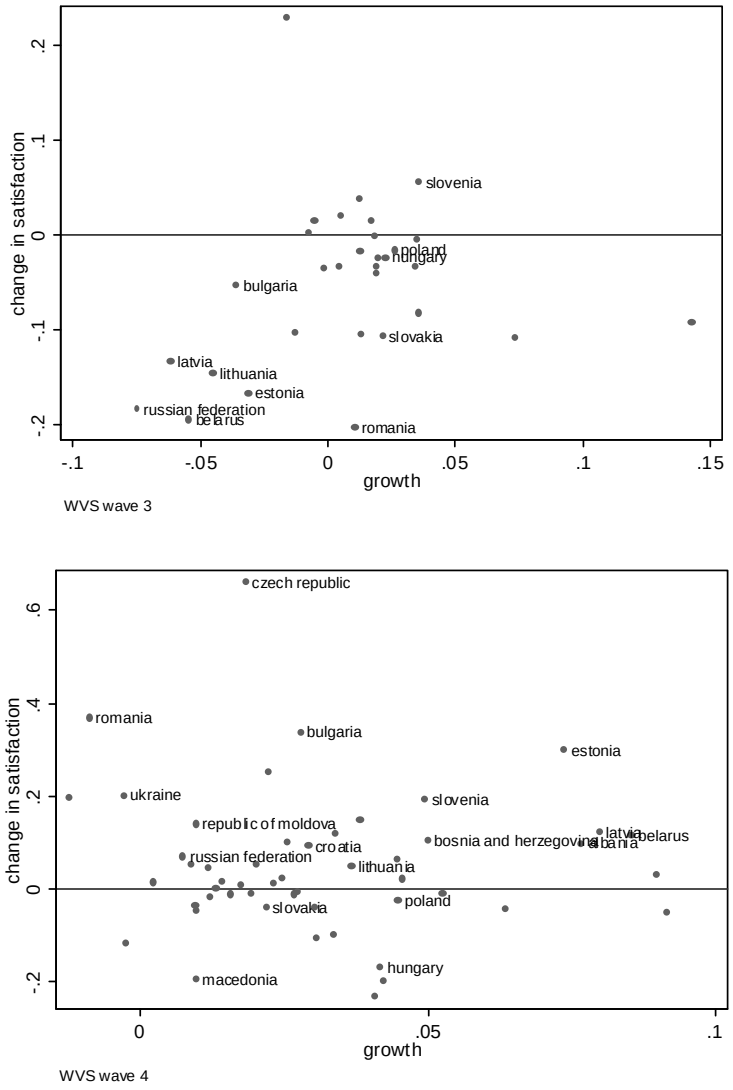
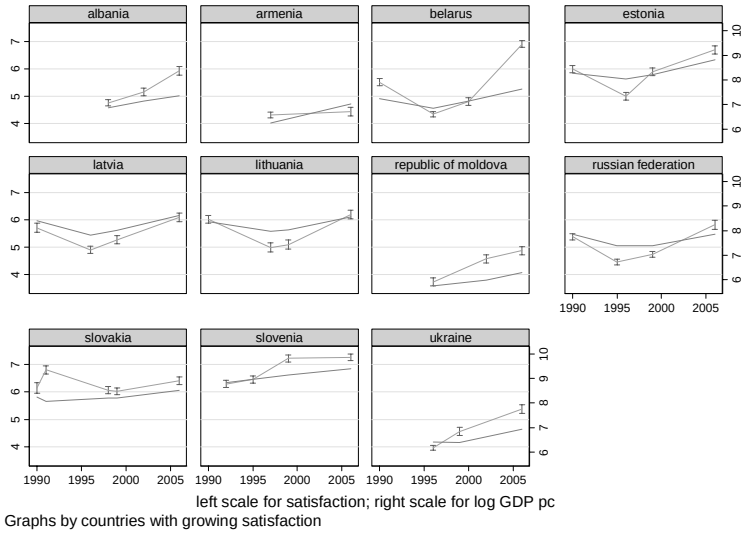
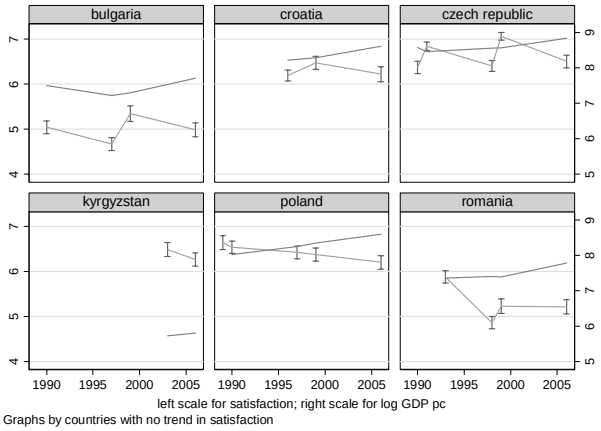


Figure 3. Change in life satisfaction and average annual change in log per capita GDP (WDI, PPP-adjusted). Source: WVS. All countries included in the surveys; only transition countries marked with names.

Panel a:



Panel b:



Panel c:

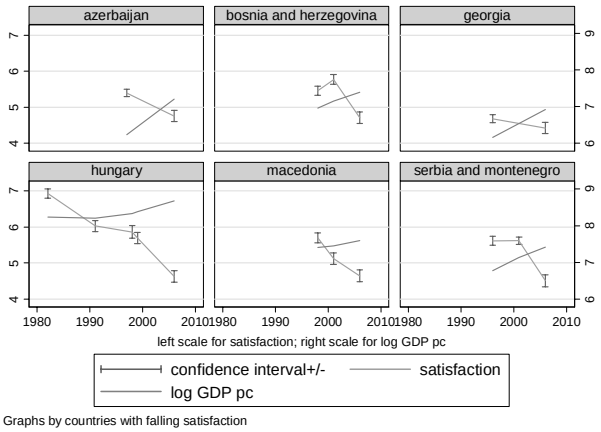


Figure 4. Dynamics of life satisfaction (left scale) and Log per capita GDP (WDI, PPP) (right scale). Source: WVS and LITS.

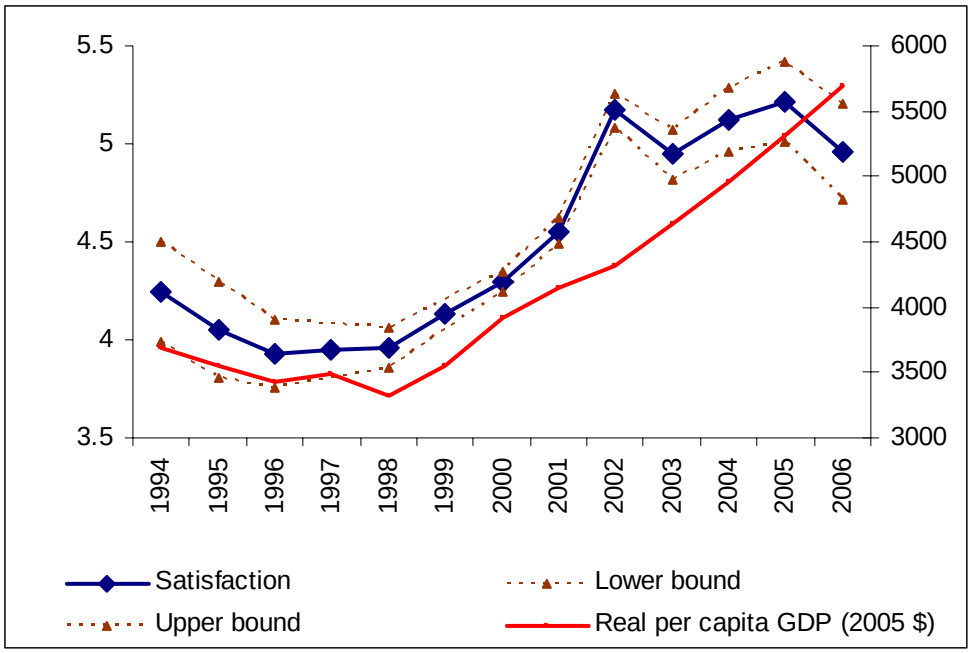


Figure 5. Dynamics of life satisfaction and per capita GDP in Russia. Left scale: Life satisfaction for an average individual from the panel regressions with person fixed effects and other usual controls (with 95% confidence interval). In 1997 and 1999, there were no RLMS surveys, we use linear interpolation. Source: RLMS. Right scale: Real per capita GDP in 2005 US dollars. Source: WDI. (The corresponding series of per capita GDP in PPP terms have similar shape, albeit different values. We report the non-adjusted to PPP numbers because the PPP-adjusted numbers are available only until 2004. In 2004, the PPP-adjusted GDP per capita in Russia reached $11,794 according to the PWT and $9,902 according to the WDI.)

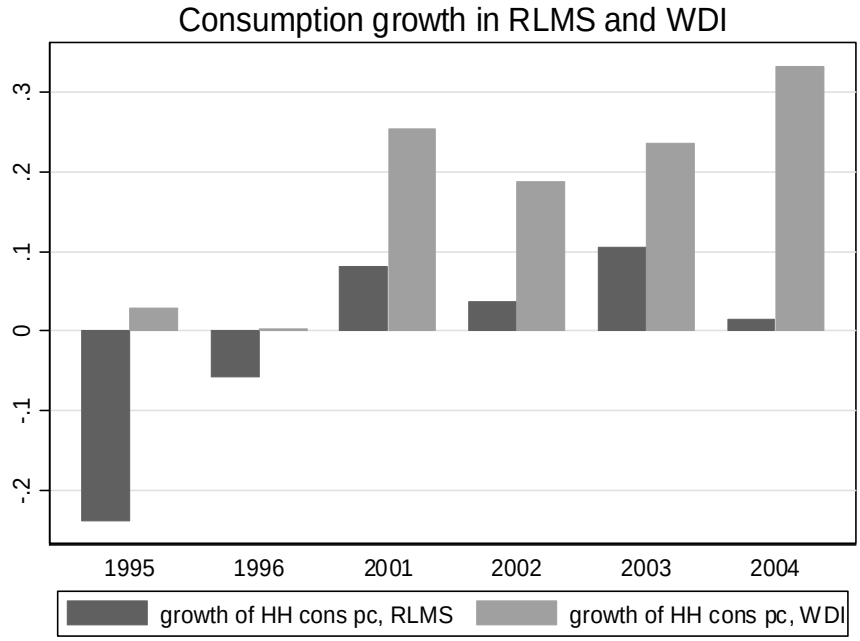


Figure 6. Household consumption growth is slower in RLMS sample than in national accounts.

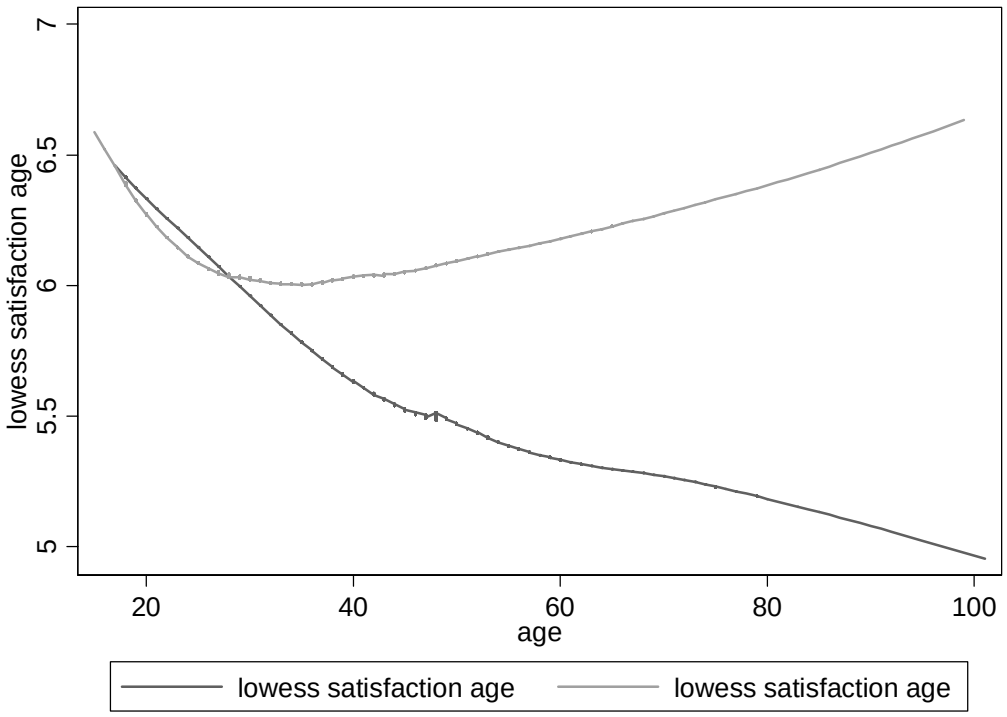


Figure 7. Age and happiness in transition countries (decreasing line) and non-transition countries with per capita income comparable to transition countries (U-shaped line). Non-parametric (lowess) smoother with bandwidth = 0.8.

Table 1. Is life satisfaction lower in transition?

	Dependent variable: life satisfaction (1-10)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Transition country dummy	-1.12	-1.40					
	[0.33]***	[0.33]***					
Transition country dummy * wave 2			-0.68	-0.64			
			[0.23]***	[0.24]***			
Transition country dummy * wave 3			-1.42	-1.54			
			[0.28]***	[0.28]***			
Transition country dummy * wave 4			-0.85	-0.88			
			[0.31]***	[0.33]***			
Log GDP pc (PPP $)	0.32	0.47	0.40	0.43			
	[0.23]	[0.17]***	[0.12]***	[0.12]***			
Relative HH income (1-10)	0.20	0.14	0.14	0.13	0.12		
	[0.03]***	[0.02]***	[0.02]***	[0.02]***	[0.02]***		
Transition country * (Log GDP pc - mean)			0.38				
			[0.22]*				
Transition country * (Relative HH income - mean)				0.07	0.07		
				[0.03]**	[0.02]***		
Log HH income						0.41	
						[0.06]***	
Transition country * Log HH income						0.26	
						[0.07]***	
Log HH income per capita							0.23
							[0.04]***
Transition country * Log HH income per capita							0.21
							[0.06]***
Wave dummies			yes	yes	yes		
Iindivudual controls	yes	yes	yes	yes	yes	yes	yes
Country-level controls	yes	yes	yes	yes			
Country dummies					yes	yes	yes
Sample: Countries	all	all	all	all	all	all	all
Sample: Wave	4	3	all	all	all	4	4
Observations	57 868	51 516	162 473	162 473	223 724	63 237	27 290
R-squared	0.18	0.25	0.19	0.19	0.23	0.23	0.28
Countries	45	39	56	56	84	53	26
Transition countries	16	14	17	17	23	16	11

Note: Additional country-level controls: unemployment, inflation, Gini, media freedom, and democracy; individual-level controls: age with quadratic term, educational attainment, employment status, and marital status. SEs adjusted for clustering at country level are in brackets. Asterisks *, **, *** denote significance at 1, 5, and 10% level.

Table 2. Why is life satisfaction lower in transition?

	Dependent variable: life satisfaction (1-10)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Transition country dummy * wave 2	-0.59		-0.69	-0.5		-0.53	-0.24	-1.16	-0.48	-0.14
	[0.23]**		[0.19]***	[0.28]*		[0.22]**	[0.23]	[0.33]***	[0.21]**	[0.20]
Transition country dummy * wave 3	-1.52			-1.28				-1.77		
	[0.27]***			[0.35]***				[0.27]***		
Transition country dummy * wave 4	-0.83		-0.73	-0.67	-1.82	-0.84	-0.49	-1.2	-0.43	-0.19
	[0.32]**		[0.18]***	[0.40]	[0.53]***	[0.23]***	[0.27]*	[0.31]***	[0.25]	[0.25]
Age	-0.06	-0.05	-0.06	-0.07	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06
	[0.01]***	[0.02]**	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
(Age squared)/100	0.07	0.06	0.06	0.07	0.06	0.06	0.06	0.07	0.06	0.06
	[0.01]***	[0.02]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
Transition country * (Age - mean)	-0.03									
	[0.01]***									
Transition country * (Age-sqrd/100 - mean)	0.02									
	[0.01]									
Reform in the year when finished education		0.26								
		[0.12]**								
Reform in the current year		0.36								
		[0.29]								
Year finished education		0.01								
		[0.02]								
Confidence: education system			1.02						0.93	0.84
			[0.32]***						[0.28]***	[0.30]***
Confidence: police			0.33						0.46	0.39
			[0.27]						[0.27]*	[0.28]
Confidence: justice system			0.11							
			[0.43]							
Log share DPT immulization			0.16						0.20	-1.16
			[0.13]						[0.12]*	[0.63]*
Log Infant mortality			-0.49						-0.46	-0.48
			[0.16]***						[0.13]***	[0.18]**
Loss emissions pc			-0.14						-0.12	-0.18
			[0.13]						[0.12]	[0.11]
Income volatility				-4.61			-10.57		-8.72	-9.35
				[3.29]			[3.45]***		[3.62]**	[3.46]**
Future is uncertain					0.99					
					[0.68]					
Poor are poor because of injustice						-0.93	-0.93			-0.43
						[0.85]	[0.81]			[0.70]
Transition country * (Gini - Gini mean)								-0.07		
								[0.03]**		
Gini (0-100)	0.02	-0.04	0.02	0.02	-0.05	0.01	0.02	0.03	0.02	0.03
	[0.01]*	[0.02]*	[0.01]**	[0.01]*	[0.02]*	[0.01]	[0.01]	[0.01]**	[0.01]***	[0.01]***
Democracy score	-0.02	-0.01	-0.02	-0.02	0.00	-0.02	-0.02	-0.02	-0.02	-0.02
	[0.00]***	[0.01]	[0.00]***	[0.00]***	[0.03]	[0.00]***	[0.00]***	[0.00]***	[0.00]***	[0.00]***
Log GDP pc (PPP $)	0.41	0.59	0.19	0.41	-0.15	0.6	0.47	0.42	0.22	0.41
	[0.12]***	[0.24]**	[0.14]	[0.12]***	[0.58]	[0.08]***	[0.08]***	[0.11]***	[0.18]	[0.16]**
Wave dummies	yes		yes	yes		yes	yes	yes	yes	yes
Iindivudual controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Country-level controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sample: Countries	all	TC	all	all	all	all	all	all	all	all
Sample: Wave	all	4	2 & 4	all	4	2 & 4	2 & 4	all	2 & 4	2 & 4
Observations	162 473	26 385	77 852	162 473	22 871	69 662	69 662	162 473	77 852	66 374
R-squared	0.19	0.15	0.19	0.19	0.27	0.18	0.18	0.19	0.19	0.19
Countries	56	16	37	56	17	38	38	56	37	37
Transition countries	17	16	13	17	4	13	13	17	13	13

Note: Additional country-level controls: unemployment, inflation, and media freedom; additional individual-level controls: age with quadratic term, relative HH income, educational attainment, employment status, and marital status. SEs adjusted for clustering at country level are in brackets. Asterisks *, **, *** denote significance at 1, 5, and 10% level.

Appendix (not for publication, available on the web)

Part A.I: Data Description

Table A.1 Description of the variables

Country level variables:	
Log GDP pc (PPP $)	Natural log of GDP per capita (constant 2000 international $, PPP-adjusted). Source: World Development Indicators (WDI), 2006; we also check robustness of our results to using Penn World Tables (PWT 6.2)
Log GDP pc (constant $)	Natural log of GDP (constant 2005 US$) per capita. Source: EBRD Transition Indicators and World Development Indicators (WDI), 2006
Log HH consumption pc	Natural log of HH final consumption expenditure per capita (constant 2000 US$). Source: WDI, 2006
Log Pop	Natural log of total population. Source: World Development Indicators (WDI), 2006
Unemployment	Unemployment, total (% of total labor force) average over years where the data is available for the corresponding country. Source: World Development Indicators (WDI), 2006
Inflation	Inflation, consumer prices (annual %) average over years where the data is available for the corresponding country. Source: World Development Indicators (WDI), 2006
Gini	Gini index average over years where the data is available for the corresponding country. Source: World Development Indicators (WDI), 2006
Income volatility	Standard deviation of per capita growth of GDP (PPP $) calculated over years 1989-2004
Log share DPT immunization	Natural log of immunization, DPT (% of children ages 12-23 months) average over the years covered by the corresponding wave in the WVS dataset. Source: World Development Indicators (WDI), 2006
Log infant mortality	Natural log of mortality rate under 5 years (per 1000 persons) average over the years covered by the corresponding wave in the WVS dataset. Source: World Development Indicators (WDI), 2006
Log emissions pc	Natural log of CO_2 emissions (metric tons per capita) average over the years covered by the corresponding wave in the WVS dataset. Source: World Development Indicators (WDI), 2006
Media freedom	A rating of media freedom (on a scale from 0 to 2; 0 – not free media, 2 – free media). Source: Freedom House 2007
Democracy	A rating of democracy institutions (on a scale from 0 to 10; 0 – none of democratic institutions, 10 – all democratic institutions). Source: Polity IV v2004
Log Energy use pc	Natural log of energy use per capita (kg of oil equivalent). Source: WDI, 2006
Automobiles pc	Vehicles per capita. Source: World Development Indicators (WDI), 2006
Reform in the current year (for transition countries)	An index that equals the average score minus 1 of EBRD transition indicators for large scale privatization, small scale privatization, enterprise restructuring, price liberalization, trade and forex system, competition policy, banking reform and interest rate liberalization, securities markets and non-bank financial institutions, overall infrastructure reform. EBRD calculated these indices on the basis from 1 to 4.3 (4+) where the higher the index is means higher progress in corresponding area of reforms. Source: EBRD Transition Indicators
Transition country dummy	Dummy variable equals 1 for countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Mongolia, Poland, Romania, Russian Federation, Serbia and Montenegro, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan and 0 otherwise

Table A.1 continued from previous page…

Variables from the World Values Survey, waves 1-4 (wave 1: years 1981-1984; wave 2: years 1989-1993; wave 3: years 1994-1999; wave 4: years 1999-2004)	
Satisfaction_WVS	An index from 1 to 10. The answer of an interviewed person to the question: "All things considered, how satisfied are you with your life as a whole these days?"; 1 – dissatisfied, 10 – satisfied
Happiness_WVS	An index from 1 to 10. The answer of an interviewed person to the question: "Taking all things together, would you say you are 1 – very happy, 2 – quite happy, 3 – not very happy, 4 – not at all happy"; we normalized this number to the scale from 1 to 10 (the higher the number is, the happier the interviewed person)
Age	Age of an interviewed person
Relative HH income	Position on an imaginary 10-step income ladder. An index on a scale from 1 to 10. The higher the index, the higher the relative income of the household of an interviewed person in comparison with other households in the country
Log HH income	Annual total income of the household where the interviewed person belongs in the national currency
Log HH income per capita	Annual total income per capita of the household where the interviewed person belongs in the national currency
Educational attainment	6 levels of education: incomplete primary, complete primary, incomplete secondary, complete secondary, university without degree, university with degree. We construct dummy-variables for each level of educational attainment that equals 1 if an interviewed person has corresponding educational attainment and 0 otherwise
Year finished education	Calculated from the year of interview, age of the interviewee and age of completing education of the interviewee
Reform in the year when finished education	An index that equals "Reform in the current year" index (see above) when the current year is the "Year finished education" (see above)
Employment status	8 categories of employment status: full employment, self-employment, part-time, student, housewife, retired, unemployment, other type of employment. We construct dummy-variables for each category of employment status that equals 1 if an interviewed person has corresponding employment status and 0 otherwise
Marital status	6 categories of marital status: single, married, living together, divorced, separated, widowed. We construct dummy-variable for each category of marital status that equals 1 if an interviewed person has corresponding marital status and 0 otherwise
Confidence: education system	An index on a scale from 0 to 3. The answer to the question: "…could you tell me how much confidence you have in education system: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all; 1 – a great deal, 2 – quite a lot, 3 – not very much, 4 – none at all?"; we normalized this number to the scale from 0 to 3 (the higher the number is, the more confident the interviewed person). We average this variable over all individuals in the country excluding the respondent.

Table A.1 continued from previous page…

Confidence: police	An index on a scale from 0 to 3. The answer to the question: "…could you tell me how much confidence you have in police: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all; 1 – a great deal, 2 – quite a lot, 3 – not very much, 4 – none at all?"; we normalized this number to the scale from 0 to 3 (the higher the number is, the more confident the interviewed person). We average this variable over all individuals in the country excluding the respondent.
Confidence: justice system	An index on a scale from 0 to 3. The answer to the question: "…could you tell me how much confidence you have in justice system: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all; 1 – a great deal, 2 – quite a lot, 3 – not very much, 4 – none at all?"; we normalized this number to the scale from 0 to 3 (the higher the number is, the more confident the interviewed person). We average this variable over all individuals in the country*wave excluding the respondent.
Future is uncertain	A measure of how much an interviewed person agrees with the statement that it is best to live from day to day in comparison with other interviewees in the same country and during the same wave. The answer to the question: "Do you tend to agree or disagree with the following statement: The future is so uncertain that it is best to live from day to day; 1 – tend to agree, 2 – tend to disagree". We average this variable over all individuals in the country*wave excluding the respondent.
Poor are poor because of injustice	A measure that shows to what extent an interviewed person believes that injustice in society is the major reason of presence of people in need in his country in comparison with other interviewees in the same country and during the same wave. The interviewed person answers the following question: "Why are there people in this country who live in need? Which one reason do you consider to be most important?; 1 – unlucky, 2 – laziness or lack of willpower, 3 – injustice in society, 4 – part modern progress, 5 – none of these". We make a dummy variable that equals 1 if the interviewee chooses answer 3 and 0 otherwise. We average this variable over all individuals in the country*wave excluding the respondent.
Wave X (X=1, …, 4)	Dummy variable that equals 1 for individuals interviewed during the wave X of WVS and 0 otherwise
Measures of life satisfaction from alternative sources	
Satisfaction_RLMS	An index from 1 to 10. The answer of an interviewed person to the question: "To what extent are you satisfied with your life in general at the present time?; 1 – fully satisfied, 2 – rather satisfied, 3 – both yes and no, 4 – less than satisfied, 5 – not at all satisfied"; we normalized this number to the scale from 1 to 10 (the higher the number is, the more satisfied the interviewed person)
Satisfaction_LITS	An index from 1 to 10. The answer of an interviewed person to the question: "All things considered, I am satisfied with my life now?; 1 – strongly disagree, 2 – disagree, 3 – neither disagree nor agree, 4 – agree, 5 – strongly agree"; we normalized this number to the scale from 1 to 10 (the higher the number is, the more satisfied the interviewed person)

Table A.2 Summary Statistics

Variable	Number of observations	Mean	Standard deviation	Min	Max
Log GDP pc (WDI, PPP)	4412	8.42	1.11	6.14	11.07
Log GDP pc (PWT, PPP)	1733	8.97	0.97	6.16	10.83
Log GDP pc (constant $)	5833	7.49	1.54	4.03	10.88
Log HH consumption pc (constant $)	4301	7.15	1.44	4.01	10.13
Log Pop	8555	15.10	2.07	9.62	20.98
Unemployment	144	10.24	7.27	0.57	43.5
Inflation	168	43.53	120.4	-1.67	863.4
Gini	128	40.33	10.50	19.0	74.33
Income volatility	178	0.047	0.042	0.008	0.3169
Log share DPT immunization	171	4.44	0.255	2.30	4.60
Log infant mortality	172	2.59	0.907	0.986	4.79
Log emissions pc	179	1.55	0.970	-2.77	3.01
Automobiles pc	1573	0.175	0.191	0.00037	0.808
Log Energy use pc	4116	7.20	1.08	4.45	10.51
Media freedom	4644	0.957	0.850	0	2
Democracy	1894	8.02	2.06	2	10
Log GDP pc in constant dollars	453	7.28	0.977	5.06	9.39
Reform in the current year	57	1.47	0.809	0	2.81
Transition country dummy	84	0.27	0.449	0	1
Satisfaction_WVS	263097	6.62	2.49	1	10
Happiness_WVS	257881	7.03	2.22	1	10
Age	264839	41.2	16.3	15	101
Relative HH income	228938	4.68	2.48	1	11
Log HH income	155528	10.8	2.54	4.56	19.8
Log HH income per capita	40772	10.2	2.38	3.62	18.2
Educational attainment: incomplete primary	267870	0.084	0.277	0	1
Educational attainment: complete primary	267870	0.107	0.309	0	1
Educational attainment: incomplete secondary	267870	0.063	0.243	0	1
Educational attainment: complete secondary	267870	0.115	0.319	0	1
Educational attainment: University without degree	267870	0.069	0.253	0	1
Educational attainment: University with degree	267870	0.116	0.320	0	1

Table A.2 continued from previous page

Variable	Number of observations	Mean	Standard deviation	Min	Max
Year finished education	267870	0.052	0.222	0	1
Reform in the year when finished education	267870	0.096	0.294	0	1
Employment status: full employment	267870	0.379	0.485	0	1
Employment status: self-employment	267870	0.084	0.277	0	1
Employment status: part-time	267870	0.072	0.258	0	1
Employment status: student	267870	0.067	0.250	0	1
Employment status: housewife	267870	0.139	0.346	0	1
Employment status: retired	267870	0.135	0.342	0	1
Employment status: unemployment	267870	0.077	0.267	0	1
Employment status: other type of employment	267870	0.017	0.128	0	1
Marital status: single	267870	0.234	0.423	0	1
Marital status: married	267870	0.589	0.492	0	1
Marital status: living together	267870	0.042	0.200	0	1
Marital status: divorced	267870	0.036	0.186	0	1
Marital status: separated	267870	0.015	0.122	0	1
Marital status: widowed	267870	0.066	0.248	0	1
Confidence: education system	124439	1.8	0.218	1.10	2.45
Confidence: police	255875	1.6	0.358	0.844	2.49
Confidence: justice system	208440	1.5	0.256	0.893	2.28
Future is uncertain	32027	0.533	0.128	0.195	0.720
Poor are poor because of injustice	105061	0.382	0.122	0.133	0.689
Wave 1	190	0.111	0.314	0	1
Wave 2	190	0.226	0.420	0	1
Wave 3	190	0.289	0.455	0	1
Wave 4	190	0.374	0.485	0	1
Satisfaction_RLMS	104082	4.62	2.59	1	10
Satisfaction_LITS	26387	5.80	2.57	1	10

Part II: Details of empirical methodology

In the main text of the paper, we present two tables with regression results. This section describes the methodological details of all estimated regression equations in the order in which the results are reported in Tables 1 and 2.

Equations estimated in Table 1

Columns 1 and 2 of Table 1 report estimation results of the difference in satisfaction in transition and non-transition countries by wave. The estimated equation is as follows:

$$S_{it} = \alpha_0 + \alpha_1 T_c + \beta_1 Y_{ct} + \beta_2 R_{ict} + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \epsilon_{ict},$$

where i indexes individuals; c indexes countries of residence of individuals i; and t indexes years in which the particular wave of the World Values Survey took place in the country c. S_{it} denotes life satisfaction of respondent i in year t. T_c denotes transition country dummy. Y_{ct} is a measure of economic well-being of the country c. As a baseline, we report results with Log GDP per capita (WDI, PPP). In addition, we use various alternative measures of economic well-being (as discussed below). R_{ict} denotes the relative HH income, i.e., the perception of the individual i of the position of her household on the imaginary 10-step income ladder relative to other households in the country at time t. $\mathbf{X}$ is a vector of individual-level control variables that consists of age with a quadratic term, six dummy variables for educational attainment, six dummy variables for marital status, and eight dummy variables for employment status. $\mathbf{Z}_{ct}$ is a vector of country-level control variables, which consists of unemployment level, inflation level, Gini coefficient, Media freedom and Democracy indices. Throughout the section, we keep the same notation. All variables used in the empirical analysis are described in Table A.1 and summarized in Table A.2 in this Appendix. ϵ_{ict} denotes an error term. In all regressions presented in the paper, we adjust standard errors to allow for clusters in the error term ϵ_{ict} within countries. Without this adjustment, standard errors of all estimation coefficients (in all estimated equations) become substantially smaller. Columns 1 and 2 of Table 1 report results separately for the Waves 4 and 3 of the WVS.

Columns 3 and 4 of Table 1 report results of the estimation of differential effect of income in transition and non-transition countries where the transition country dummy T_c is interacted with income variables. These equations are estimated on the pooled sample from all waves. In the Column 3, we estimate the following specification, which looks at the effect of country-level income:

$$S_{it} = \alpha_0 + \alpha_1' T_c \mathbf{W}_t + \beta_1 Y_{ct} + \beta_2 R_{ict} + \delta T_c (Y_{ct} - \overline{Y}) + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict}.$$

$\mathbf{W}_t$ denotes a vector of dummy variables indicating the wave, in which the particular interview took place. Henceforth, the upper bars denote the overall sample mean.

In the Column 4, we include the interaction of transition country dummy with the household relative income R_{ict} :

$$S_{it} = \alpha_0 + \alpha_1' T_c \mathbf{W}_t + \beta_1 Y_{ct} + \beta_2 R_{ict} + \delta T_c (R_{ict} - \overline{R}) + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict}.$$

Column 5 of Table 1 reports results of estimation of the effect of relative income controlling for all country-level variation with country fixed effects:

$$S_{it} = \beta_2 R_{ict} + \phi T_c(R_{ict} - \overline{R}) + \gamma_1' \mathbf{X}_{it} + \gamma_3' \mathbf{W}_t + \phi_c + \epsilon_{ict},$$

where ϕ denotes country fixed effects and the rest of notation is the same. This equation is estimated on the pooled sample from all waves.

Columns 6 and 7 of Table 1 present results of estimation of the effect of the absolute nominal income controlling for all country-level variation with country fixed effects:

$$S_{it} = \xi_1 y_{it} + \xi_2 T_c y_{it} + \gamma_1' \mathbf{X}_{it} + \phi_c + \epsilon_{ict},$$

where y_{it} denotes the Log nominal (self-reported) household income of individual i. In Column 6, we use the total household income, whereas in Column 7 total household income *per household member*. This equation is estimated on the sample of the Wave 4 of the WVS. The data on the nominal household incomes exist for the Waves 1 and 4; due to problems with identification of the units of y_{it}, we cannot deflate it properly to be able to pool both waves together.

Equations estimated in Table 2

In Column 1 of Table 2, we present results of the estimation of the differential effect of age in transition and non-transition countries:

$$S_{it} = \alpha_0 + \alpha_1' T_c \mathbf{W}_t + \beta_1 Y_{ct} + \mu_1 T_c * (A_{it} - \overline{A}) + \\ + \mu_2 T_c * (A_{it}^2/100 - \overline{A^2}/100) + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict},$$

where A_{it} denotes age of individual i at time t. Note that the vector $\mathbf{X}$ controls for the direct effect of age and age squared.

Column 2 of Table 2 presents results of the estimation of the cohort effect educated before and after transition:

$$S_{it} = \alpha_0 + \beta_1 Y_{ct} + \eta_1 F_i + \eta_2 L_{ct} + \eta_3 L_{cF_i} + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict}.$$

Here, F_i denotes the year when individual i completed her education. L_{ct} stands for the reform progress in country c and year t; and L_{cF_i} stands for the reform progress in country c at time F_i, i.e., when individual i completed education. We take two alternative measures of the reform progress: (1) the value of the EBRD reform index for the respective year and (2) a dummy, indicating the start of reform in the country, i.e., the indicator that the EBRD reform index is above a certain threshold (we describe these variables in detail in Table A.1). This equation is estimated on the subsample of transition countries.

Columns 3 to 7, 9 and 10 of Table 2 present results of the estimation of the following equation:

$$S_{it} = \alpha_0 + \alpha_1' T_c \mathbf{W}_t + \beta_1 Y_{ct} + \nu' P_{ict} + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict}.$$

where P_{ict} denotes the vector with selected components from the following list of variables: "Confidence: education system," "Confidence: police," "Confidence: justice system,"

"Log share DPT immunization," "Log infant mortality," "Log emissions per capita," "Income volatility," "Future is uncertain," and "Poor are poor because of injustice." (See Table 2 for the exact list of components of P_{ict}—different for different Columns). This equation is estimated on different samples depending on the included list of the components of P_{ict} because of data availability.

Finally, Column 8 of Table 2 reports the results of estimation of the following equation:

$$S_{it} = \alpha_0 + \alpha_1' T_c \mathbf{W}_t + \beta_1 Y_{ct} + \mu_3 T_c (G_{ct} - \overline{G}) + \gamma_1' \mathbf{X}_{it} + \gamma_2' \mathbf{Z}_{ct} + \gamma_3' \mathbf{W}_t + \epsilon_{ict}.$$

Notice that the direct effect of the Gini coefficient G_{ct} is controlled for in $\mathbf{Z}_{ct}$.

Alternative measures of economic well-being

We verify that the results presented in Tables 1 and 2 in the main text are robust to using the following alternative measures of economic well-being: Log per capita GDP from the Penn World Tables; Log per capita GDP and consumption in constant US$ (without PPP adjustment), Log energy use, and automobiles per capita. This is necessary because (i) PPP estimates of GDP for transition countries are particularly noisy and (ii) it is particularly hard to account for unofficial economy in national accounts in the transition period. Tables and figures in the remainder of this Appendix (i.e., Part III) present the results of these robustness checks. Overall, our results are very robust.

Part A.III: Robustness to alternative measures of economic well-being

Table A.3 Reconstruction of Table 1 with alternative measures of economic wellbeing

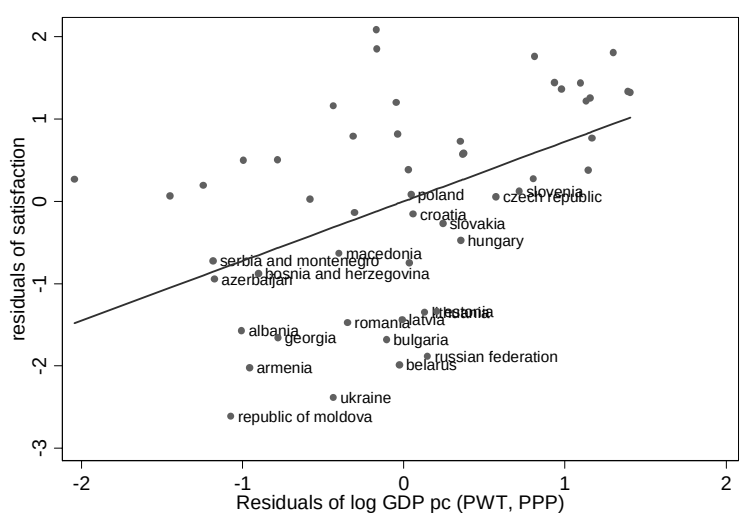
Dependent variable in all regressions: life satisfaction (1-10)

Measure of Econ. wellbeing:	Log GDP pc (WDI, PPP)			Log GDP pc (PWT, PPP)			Log GDP pc (WDI, constant $)		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Transition country dummy	-1.11	-1.37		-1.14	-1.48		-0.91	-1.38	
	[0.33]***	[0.35]***		[0.33]***	[0.36]***		[0.34]***	[0.33]***	
Transition country dummy * wave2			-0.68			-0.49			-0.45
			[0.23]***			[0.21]**			[0.18]**
Transition country dummy * wave3			-1.43			-1.63			-1.2
			[0.28]***			[0.31]***			[0.27]***
Transition country dummy * wave4			-0.84			-0.94			-0.6
			[0.31]***			[0.32]***			[0.28]**
Econ. wellbeing	0.31	0.46	0.4	0.34	0.31	0.43	0.31	0.23	0.28
	[0.23]	[0.17]**	[0.12]***	[0.24]	[0.17]*	[0.11]***	[0.12]**	[0.09]**	[0.06]***
Relative HH income (1-10)	0.2	0.14	0.14	0.2	0.14	0.14	0.2	0.14	0.14
	[0.03]***	[0.02]***	[0.02]***	[0.02]***	[0.02]***	[0.02]***	[0.03]***	[0.02]***	[0.02]***
Transition country * (Econ. wellbeing - mean)			0.38			0.29			0.4
			[0.22]*			[0.29]			[0.15]**
Wave dummies			yes			yes			yes
Sample: Wave	4	3	all	4	3	all	4	3	all
Observations	57868	51516	162473	57868	51516	165377	57868	51516	165409
R-squared	0.18	0.25	0.19	0.18	0.25	0.19	0.18	0.25	0.19
Countries / Transition countries	45/16	39/14	56/17	45/16	39/14	56/17	45/16	39/14	56/17

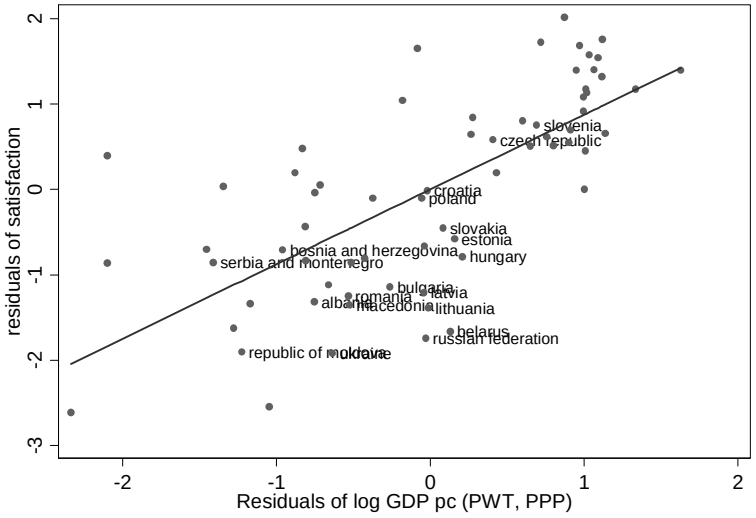
Measure of Econ. wellbeing:	Automobiles pc (WDI)			Log energy use pc (WDI)			Log Consumption pc (WDI)		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Transition country dummy	-0.98	-1.56		-1.27	-1.41		-0.75	-1.4	
	[0.28]***	[0.34]***		[0.28]***	[0.37]***		[0.29]**	[0.32]***	
Transition country dummy * wave2			-0.37			-0.63			-0.26
			[0.24]			[0.25]**			[0.22]
Transition country dummy * wave3			-1.5			-1.87			-1.09
			[0.29]***			[0.25]***			[0.28]***
Transition country dummy * wave4			-0.93			-1.07			-0.55
			[0.29]***			[0.29]***			[0.25]**
Econ. wellbeing	1.38	0.48	1.45	0.22	0.02	0.27	0.41	0.21	0.31
	[0.66]**	[0.59]	[0.53]***	[0.19]	[0.13]	[0.10]**	[0.10]***	[0.09]**	[0.05]***
Relative HH income (1-10)	0.19	0.15	0.15	0.2	0.14	0.14	0.19	0.14	0.14
	[0.02]***	[0.02]***	[0.02]***	[0.02]***	[0.02]***	[0.02]***	[0.03]***	[0.02]***	[0.02]***
Transition country * (Econ. wellbeing - mean)			2.76			-0.13			0.48
			[1.49]*			[0.30]			[0.18]**
Wave dummies			yes			yes			yes
Sample: Wave	4	3	all	4	3	all	4	3	all
Observations	51752	51516	144993	56848	50887	164675	55930	51516	164386
R-squared	0.19	0.24	0.19	0.17	0.25	0.18	0.19	0.25	0.19
Countries / Transition countries	40/15	39/14	54/17	44/15	38/13	55/16	44/16	39/14	55/17

Note: Specifications are exactly the same as in regressions reported in columns (1), (2), and (3) of Table 1.

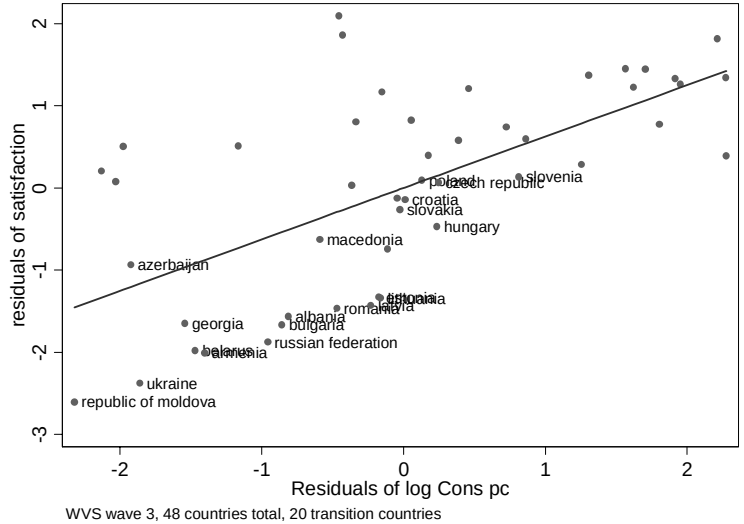
Figure A.1 Reconstruction of the Figure 2 with GDP from PWT and Consumption in constant dollars:



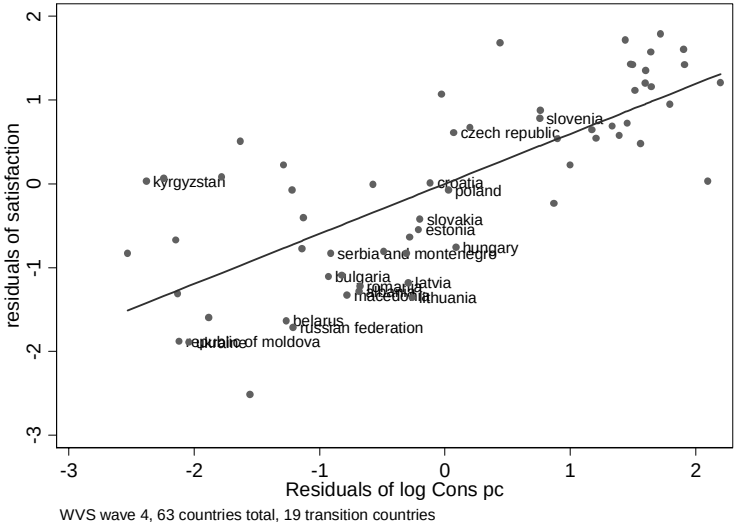
WVS wave 3, 53 countries total, 22 transition countries



WVS wave 4, 67 countries total, 19 transition countries



WVS wave 3, 48 countries total, 20 transition countries



WVS wave 4, 63 countries total, 19 transition countries

Note: These graphs look very similar when we use other measures of economic well-being as well.

Table A.4 Reconstruction of Table 2 with per capita GDP from WDI replaced by GDP from PWT:

	Dependent variable: life satisfaction (1-10)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Transition country dummy * wave2	-0.42		-0.59	-0.29		-0.47	-0.15	-1.02	-0.33	0.01
	[0.20]**		[0.19]***	[0.23]		[0.21]**	[0.23]	[0.39]**	[0.23]	[0.21]
Transition country dummy * wave3	-1.65			-1.3				-1.88		
	[0.27]***			[0.37]***				[0.27]***		
Transition country dummy * wave4	-0.9		-0.93	-0.66	-1.34	-0.93	-0.47	-1.26	-0.54	-0.31
	[0.32]***		[0.18]***	[0.41]	[0.66]*	[0.25]***	[0.29]	[0.31]***	[0.25]**	[0.23]
Age	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06
	[0.01]***	[0.02]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
(Age squared)/100	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.07	0.06	0.06
	[0.01]***	[0.02]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
Transition country *(Age - mean)	-0.03									
	[0.01]***									
Transition country *(Age-sqrd/100 - mean)	0.02									
	[0.01]*									
Reform in the year when finished education		0.28								
		[0.13]*								
Reform in the current year		0.44								
		[0.31]								
Year finished education		0								
		[0.02]								
Confidence: education system			1.03						0.93	0.81
			[0.34]***						[0.28]***	[0.30]**
Confidence: police			0.24						0.41	0.35
			[0.26]						[0.26]	[0.29]
Confidence: justice system			0.15							
			[0.44]							
Log share DPT immunization			0.12						0.18	-1.28
			[0.13]						[0.11]	[0.72]*
Log Infant mortality			-0.69						-0.63	-0.65
			[0.28]**						[0.23]***	[0.29]**
Log emissions pc			-0.02						-0.02	-0.08
			[0.15]						[0.13]	[0.12]
Income volatility				-6.09			-12.79		-9.91	-10.6
				[3.17]*			[4.17]***		[3.73]**	[3.60]***
Future is uncertain					1.06					
					[0.64]					
Poor are poor because of injustice						-0.61	-0.65			-0.38
						[0.83]	[0.75]			[0.64]
Transition country * (Gini - Gini mean)								-0.07		
								[0.03]**		
Gini (0-100)	0.02	-0.04	0.02	0.02	-0.05	0.01	0.01	0.02	0.02	0.03
	[0.01]	[0.02]*	[0.01]**	[0.01]*	[0.02]**	[0.01]	[0.01]	[0.01]**	[0.01]**	[0.01]***
Democracy score	-0.02	-0.01	-0.02	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02
	[0.00]***	[0.01]	[0.00]***	[0.00]***	[0.03]	[0.00]***	[0.00]***	[0.00]***	[0.00]***	[0.00]***
Log GDP pc (PWT, ppp)	0.43	0.47	0.05	0.44	0.45	0.62	0.47	0.48	-0.03	0.17
	[0.12]***	[0.28]	[0.34]	[0.12]***	[0.81]	[0.08]***	[0.08]***	[0.10]***	[0.31]	[0.31]
Wave dummies	yes		yes	yes		yes	yes	yes	yes	yes
Individual controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Country-level controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sample: Countries	all	TC	all	all	all	all	all	all	all	all
Sample: Wave	all	4	2&4	all	4	2&4	2&4	2&4	2&4	2&4
Observations	165377	26385	80756	165377	22871	72566	72566	165377	80756	69278
R-squared	0.19	0.14	0.17	0.19	0.27	0.16	0.17	0.19	0.17	0.18
Countries	56	16	37	56	17	38	38	56	37	37
Transition countries	17	16	13	17	4	13	13	17	13	13

Table A.5 Reconstruction of Table 2 with per capita GDP from WDI replaced by per capita energy use:

	Dependent variable: life satisfaction (1-10)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Transition country dummy * wave2	-0.64		-0.7	-0.55		-0.81	-0.3	-1.35	-0.44	-0.21
	[0.22]***		[0.19]***	[0.26]**		[0.24]***	[0.23]	[0.43]***	[0.25]*	[0.22]
Transition country dummy * wave3	-1.83			-1.52				-2.11		
	[0.25]***			[0.36]***				[0.27]***		
Transition country dummy * wave4	-1.03		-1	-0.83	-1.64	-1.26	-0.58	-1.48	-0.63	-0.48
	[0.30]***		[0.19]***	[0.42]*	[0.15]***	[0.26]***	[0.29]*	[0.31]***	[0.28]**	[0.28]*
Age	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06
	[0.01]***	[0.02]**	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
(Age squared)/100	0.07	0.06	0.06	0.07	0.06	0.06	0.06	0.07	0.06	0.06
	[0.01]***	[0.02]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
Transition country *(Age - mean)	-0.03									
	[0.01]***									
Transition country *(Age-sqrd/100 - mean)	0.02									
	[0.01]*									
Reform in the year when finished education		0.3								
		[0.14]*								
Reform in the current year		0.47								
		[0.31]								
Year finished education		0								
		[0.02]								
Confidence: education system			1.15						1.05	0.92
			[0.32]***						[0.25]***	[0.28]***
Confidence: police			0.23						0.36	0.33
			[0.25]						[0.23]	[0.27]
Confidence: justice system			0.12							
			[0.41]							
Log share DPT immunization			0.19						0.23	-0.68
			[0.10]**						[0.10]**	[0.65]
Log Infant mortality			-0.81						-0.7	-0.74
			[0.15]***						[0.13]***	[0.17]***
Log emissions pc			0.44						0.33	0.27
			[0.26]*						[0.28]	[0.21]
Income volatility				-5.41			-15.99		-8.51	-10.17
				[3.75]			[4.33]***		[3.70]**	[3.67]***
Future is uncertain					0.75					
					[0.74]					
Poor are poor because of injustice						-0.83	-0.77			-0.35
						[0.87]	[0.76]			[0.62]
Transition country * (Gini - Gini mean)								-0.08		
								[0.03]**		
Gini (0-100)	0.02	-0.05	0.02	0.02	-0.07	0.01	0.02	0.03	0.02	0.03
	[0.01]	[0.02]**	[0.01]**	[0.01]	[0.02]***	[0.01]	[0.01]	[0.01]**	[0.01]***	[0.01]***
Democracy score	-0.02	-0.01	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	-0.02	-0.02
	[0.00]***	[0.01]	[0.00]***	[0.00]***	[0.02]	[0.00]***	[0.00]***	[0.00]***	[0.00]***	[0.00]***
Energy use pc	0.25	0.33	-0.56	0.25	0.64	0.38	0.28	0.29	-0.45	-0.37
	[0.11]**	[0.19]	[0.30]*	[0.12]**	[0.25]**	[0.12]***	[0.12]**	[0.09]***	[0.31]	[0.27]
Wave dummies	yes		yes	yes		yes	yes	yes	yes	yes
Individual controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Country-level controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sample: Countries	all	TC	all	all	all	all	all	all	all	all
Sample: Wave	all	4	2&4	all	4	2&4	2&4	2&4	2&4	2&4
Observations	164675	25365	81703	164675	22871	73513	73513	164675	81703	70225
R-squared	0.18	0.14	0.18	0.18	0.27	0.16	0.17	0.19	0.18	0.19
Countries	55	15	37	55	17	38	38	55	37	37
Transition countries	16	15	13	16	4	13	13	16	13	13

Table A.6 Reconstruction of Table 2 with per capita GDP from WDI replaced by per capita GDP in constant $ without PPP adjustment:

	Dependent variable: life satisfaction (1-10)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Transition country dummy * wave2	-0.4		-0.55	-0.26		-0.43	-0.15	-1.07	-0.3	0.04
	[0.19]**		[0.18]***	[0.24]		[0.16]**	[0.17]	[0.28]***	[0.20]	[0.19]
Transition country dummy * wave3	-1.44			-1.08				-1.67		
	[0.26]***			[0.34]***				[0.25]***		
Transition country dummy * wave4	-0.72		-0.75	-0.47	-1.02	-0.73	-0.36	-1.09	-0.39	-0.13
	[0.30]**		[0.18]***	[0.39]	[1.02]	[0.23]***	[0.25]	[0.27]***	[0.20]*	[0.23]
Age	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06	-0.06	-0.07	-0.06	-0.06
	[0.01]***	[0.02]**	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
(Age squared)/100	0.06	0.07	0.06	0.07	0.06	0.06	0.06	0.07	0.06	0.06
	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***	[0.01]***
Transition country *(Age - mean)	-0.04									
	[0.01]***									
Transition country *(Age-sqrd/100 - mean)	0.02									
	[0.01]*									
Reform in the year when finished education, dummy		0.2								
		[0.11]*								
Reform in the current year		0.26								
		[0.22]								
Year finished education		0.01								
		[0.02]								
Confidence: education system			0.97						0.88	0.71
			[0.33]***						[0.28]***	[0.29]**
Confidence: police			0.29						0.42	0.42
			[0.27]						[0.27]	[0.26]
Confidence: justice system			0.1							
			[0.41]							
Log share DPT immunization			0.15						0.2	-1.01
			[0.12]						[0.12]*	[0.62]
Log Infant mortality			-0.5						-0.42	-0.41
			[0.20]**						[0.18]**	[0.20]**
Log emissions pc			-0.04						-0.06	-0.14
			[0.14]						[0.13]	[0.12]
Income volatility				-6.04			-10.81		-8.81	-10.2
				[3.12]*			[3.16]***		[3.40]**	[3.14]***
Future is uncertain					1.09					
					[0.69]					
Poor are poor because of injustice						-1.11	-1.02			-0.88
						[0.71]	[0.67]			[0.58]
Transition country * (Gini - Gini mean)								-0.07		
								[0.03]***		
Gini (0-100)	0.02	-0.03	0.02	0.02	-0.05	0.01	0.02	0.03	0.02	0.03
	[0.01]*	[0.02]*	[0.01]**	[0.01]**	[0.02]**	[0.01]	[0.01]	[0.01]**	[0.01]**	[0.01]***
Democracy score	-0.02	-0.01	-0.02	-0.02	-0.11	-0.02	-0.02	-0.01	-0.02	-0.02
	[0.00]***	[0.01]	[0.00]***	[0.00]***	[0.09]	[0.00]***	[0.00]***	[0.00]***	[0.00]***	[0.00]***
Log GDP pc (Constant US$)	0.29	0.61	0.16	0.3	0.51	0.39	0.32	0.31	0.14	0.24
	[0.06]***	[0.19]***	[0.17]	[0.06]***	[0.66]	[0.06]***	[0.06]***	[0.05]***	[0.17]	[0.15]
Wave dummies	yes		yes	yes		yes	yes	yes	yes	yes
Individual controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Country-level controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sample: Countries	all	TC	all	all	all	all	all	all	all	all
Sample: Wave	all	4	2&4	all	4	2&4	2&4	2&4	2&4	2&4
Observations	165409	26385	80788	165409	22871	72598	72598	165409	80788	69310
R-squared	0.19	0.15	0.18	0.19	0.27	0.17	0.18	0.19	0.18	0.19
Countries	56	16	37	56	17	38	38	56	37	37
Transition countries	17	16	13	17	4	13	13	17	13	13

Note: Table 2 with other measures of economic well-being (i.e., automobiles per capita and consumption per capita in constant $) also looks very similar.